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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,644

06/05/2006

Rob Otte

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT

PAPER NUMBER

2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,644	Applicant(s) OTTE, ROB	
	Examiner Peter Agustin	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This application is a national stage entry of PCT/IB04/03924, filed November 30, 2004.
2. Claims 1-5 are currently pending.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

5. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "a third step of setting said gain factor to **the value as previously set by said first and second steps** if the level of said output readout signal does not exceed said maximum target level nor drops below said minimum target level" (see last five lines). Note that this "value" would only exist if one of the following conditions are satisfied: (a) "if the level of said output readout signal exceeds said maximum target level", as recited in the "first step"; or (b) "if the level if said output readout signal drops below said minimum target level", as recited in the "second step". Therefore "the value" recited in the third step would lack antecedent basis because the condition "if the level of said output readout signal does not exceed said maximum

target level nor drops below said minimum target level” *can never occur concurrently* with conditions (a) and (b).

Claims 2-4 have similar erroneous limitations as claim 1.

Claim 5 is dependent upon claim 1.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claim 5 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 5 is drawn to a “program” *per se* as recited in the preamble and as such is non-statutory subject matter. See MPEP § 2106.01. Data structures not claimed as embodied in tangible computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed tangible computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts”

being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Horibe (WO03/077248) (please refer to US 7,215,632).

In regard to claim 1 Horibe discloses a method of controlling the level of an input readout signal (Figure 15: “reproduction signal”) read from an optical disc for generating an output readout signal (output of variable gain amplifier 1), said method comprising: a step of amplifying said input readout signal by a gain factor for generating said output readout signal (understood from variable gain amplifier 1), a step of comparing said output readout signal with a maximum target level and with a minimum target level (column 25, lines 47-51: “an amplitude detector 6 which receives the outputs of the peak detector 4 and the bottom detector 5, and calculates a signal amplitude of the input to the A/D converter 3 to output an amplitude information signal”), a first step of setting said gain factor to a value defined as the ratio between said maximum target level and the level of said input readout signal if the level of said output readout signal exceeds said maximum target level (column 13, lines 23-25: “when the detected amplitude value is larger than the target value, the controller 12 controls the gain offset unit 10 so as to reduce the gain of

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the gain offset unit 10”; column 30, lines 15-18: “the signal amplitude and offset of the input to the A/D converter are kept approximately constant”. Note that element 1 is a “variable gain amplifier”, and it is well known that the amplifier gain is set using the ratio of an output signal to an input signal. In this case, the “signal amplitude” is “kept approximately constant” by setting the gain to be a ratio between the maximum target level detected by peak detector 4 and the input reproduction signal.), a second step of setting said gain factor to a value defined as the ratio between said minimum target level and the level of said input readout signal if the level of said output readout signal drops below said minimum target level (column 13, lines 20-22: “controls the gain offset unit 10 so as to increase the gain of the gain offset unit 10 when the detected amplitude value is smaller than the target value”; column 30, lines 15-18: “the signal amplitude and offset of the input to the A/D converter are kept approximately constant”. Note that element 1 is a “variable gain amplifier”, and it is well known that the amplifier gain is set using the ratio of an output signal to an input signal. In this case, the “signal amplitude” is “kept approximately constant” by setting the gain to be a ratio between the minimum target level detected by bottom detector 5 and the input reproduction signal.), a third step of setting said gain factor to the value as previously set by said first and second steps if the level of said output readout signal does not exceed said maximum target level nor drops below said minimum target level (column 30, lines 3-4: “calculating a signal amplitude of the input to the A/D converter as an amplitude information signal”, and lines 9-11: “a controller for performing gain control and offset control of the gain offset unit based on the amplitude information signal”, i.e., it is understood that a “default” gain control is applied if the reproduction signal lies within an acceptable range. Note that this interpretation is made in light of the 112-2nd paragraph rejection above.).

Claims 2-4 have similar limitations as claim 1. Furthermore, in regard to claim 2, Horibe discloses a step of comparing said gain factor with a gain threshold (column 25, lines 47-51: “an amplitude detector 6 which receives the outputs of the peak detector 4 and the bottom detector 5, and calculates a signal amplitude of the input to the A/D converter 3 to output an amplitude information signal”), a step of generating said information signal having a first state if said gain factor is below said gain threshold (column 13, lines 20-22: “controls the gain offset unit 10 so as to increase the gain of the gain offset unit 10 when the detected amplitude value is smaller than the target value”), and a second state if said gain factor is above said gain threshold (column 13, lines 23-25: “when the detected amplitude value is larger than the target value, the controller 12 controls the gain offset unit 10 so as to reduce the gain of the gain offset unit 10”).

In regard to claim 5, Horibe discloses a computer program comprising code instructions for implementing the steps of the method as claimed in claim 1 (understood from the fact that the invention of Horibe is a “signal processing apparatus”).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Masashi et al. (US 5,574,714) disclose an amplifier with peak and bottom signal level shifting control.

Inokuchi et al. (US 6,912,190) disclose an amplitude detecting circuit that detects amplitude using a peak/bottom detecting circuit which has a time constant that can detect upper/lower envelopes of an input signal even when recorded signals are mixed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Agustin whose telephone number is 571-272-7567. The examiner can normally be reached on Monday-Thursday 8:30 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter Vincent Agustin/
Patent Examiner
Art Unit 2627